

PUGET SOUND CLEAN AIR AGENCY

Additional Notice of Construction Application Requirements for

MELTING FURNACES, KILNS, BAKING OVENS, ROASTING OVENS, CURING OVENS

General

Description of Equipment and its Purpose [*Specify melting furnace, kiln, or oven and its intended use (melt metal or glass; manufacture cement, lime, bricks; bake or roast foods; dry or cure parts; etc.)*]

Identify which of the following categories the project fits into:

1. New Construction (*New construction also includes existing, unpermitted equipment or processes*)
2. Reconstruction (*Reconstruction means the replacement of components of an existing facility to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility*)
3. Modification (*Modification means any physical change in, or change in the method of operation of, a source, except an increase in the Hours of Operation or production rates (not otherwise prohibited) or the use of an alternative fuel or raw material that the source is approved to use under an Order of Approval or operating permit, that increases the amount of any air contaminant emitted or that results in the emission of any air contaminant not previously emitted*)
4. Amendment to Existing Order of Approval Permit Conditions

Date of Manufacture (month/yr) [*This is the date when the unit was built by the manufacturer. It is required only for secondary lead furnaces (pot, blast, cupola, reverbatory), secondary brass and bronze furnaces not at foundries (reverbatory, electric, blast, cupola), basic oxygen process furnaces, ferroalloy (electric arc), carbon, alloy or specialty steel furnaces (electric arc, argon-oxygen decarbuization), glass furnaces (other than hand melting), cement kilns, and lime kilns.*]

Estimated Hours of Operation (hr/day, day/wk, wk/yr) [*Estimate the hours of operation for the new furnace, kiln or oven - not necessarily the entire facility*]

Estimated Installation Date [*Estimate the date when the furnace, kiln or oven will be put into service*]

Raw Material Properties

Raw Materials Charged [*Specify the raw materials put into the furnace, kiln or oven*]

Charging Rate (lb/hr) [*Specify the average amount of each material charged on an hourly basis*]

Design *[Most design information is available from the manufacturer or vendor. Submittal of a brochure, scale drawing or process and instrumentation diagram will facilitate the review of the permit application]*

Make & Model *[Specify the manufacturer of the furnace, kiln or oven and its model number - not its serial number]*

Type of Furnace, Kiln, or Oven

- *For melting furnaces, specify electric arc, induction, crucible, pot, reverbatory, annealing, heat treating, reheating, glass, retort, or other (describe).*
- *For kilns, specify cement, lime, brick or other (describe).*
- *For ovens, specify curing, core baking, bread baking, coffee roasting, or other (describe)*

Type of Fuel *[Specify natural gas, distillate (#2 fuel oil, diesel), residual (#6 fuel oil, bunker oil), waste oil (used oil), wood, coal, or other (describe)]*

Rated Heat Input (MMBtu/hr) *[Specify the rated heat input - not the heat output. The rated heat input is equal to the maximum fuel firing rate times its upper heating value]*

Estimated Fuel Usage (Million cu ft/yr, thousand gal/yr, tons/yr) *[Estimate how many million cubic feet of gaseous fuel, thousands of gallons of liquid fuel (not waste), or tons of solid fuel (not waste) will be burned annually. Alternatively, specify how many billion Btu/yr.]*

Rated Capacity *[Specify] (production units/hr)*

Estimated Annual Production (production units/yr)

Nitrogen Oxide Emission Controls

- *Specify if using low-NO_x burners, or*
- *staged combustion, or*
- *flue gas recirculation, or*
- *ammonia injection, or*
- *selective catalytic reduction.*

If applicable, complete the permit form for selective catalytic reduction. If selective noncatalytic reduction is used, describe the system in detail

Particulate Emission Controls *[Specify 'none', baghouse, Venturi scrubber, or ESP and complete the applicable permit forms]*

Sulfur Dioxide Emission Controls *[Specify 'none', dry injection, spray dryer, or absorber and complete the applicable permit forms]*

Emissions Estimate (lb/hr, lb/yr) *[Estimate the emissions of each pollutant and include your calculations. Emission factors are available from <http://www.epa.gov/ttn/chief/ap42/index.html>]*

Stack *[Required only for units without add on control equipment. Otherwise, use the appropriate permit forms for control equipment (spray dryer, dry injection, baghouse, absorber, ESP, selective catalytic reduction, selective noncatalytic reduction, ammonia or urea injection)]*

Stack Height (ft) [*Specify the height of the top of the stack above ground level - not above the building or sea level*]

Stack Diameter or Rectangular Cross-Sectional Dimensions (inches) [*Specify the internal dimensions - not the external dimensions*]

Exhaust Flowrate (acfm) [*Specify the airflow in actual cubic feet per minute*]

Exhaust Temperature (°F) [*Specify the temperature of the exhaust leaving the stack*]

Distance to Nearest Property Line (ft) [*Specify the distance from the base of the stack to the nearest property line*]

Height, Length and Width of Buildings (ft) [*Specify the approximate dimensions of any buildings that are >40% of the stack height and are located within 5 building heights from the stack*]

Operation and Maintenance

Describe Preventive Maintenance [*Specify the periodic maintenance recommended by the manufacturer and its frequency*]